

A Manual for Organizing and Conducting a **Student Sight Savers Program**

How Medical Students Can Help Prevent Blindness



Friends of the Congressional Glaucoma Caucus Foundation



The Friends of the Congressional Glaucoma Caucus Foundation, Inc., is dedicated to helping all Americans prevent the scourge of glaucoma and other eye diseases. The Foundation conducts screenings for high risk glaucoma population groups all across the nation.

One of the most important initiatives in our battle against this silent thief of vision is our Student Sight Savers Program, originally created by Dr. Eve Higginbotham. Here is a concise guide to organizing a Student Sight Saver Program in your school. We thank you for your assistance, and we welcome you to the team!

Sincerely,

Bud Grant
President and CEO

The medical and surgical treatment of glaucoma is beyond the scope of this handbook, and these topics will not be discussed. Students are encouraged to consult the faculty and residents of their respective departments of ophthalmology if they wish to learn more about the medical and surgical aspects of glaucoma.



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Dear Friends,

The Student Sight Saver Program (SSSP) is one of the Friends of the Congressional Glaucoma Caucus Foundation's three core projects. Since its inception, the Program has been instituted at medical schools around the United States, and SSSP events have accounted for approximately 25% of the screenings that the Foundation have conducted. This is an important contribution to the vision and well-being of thousands of Americans, but perhaps more important is what the SSSPs will mean in the future. Medical students do not get much of a chance to interact with real people – with patients – in their first two years of medical school. Furthermore, ophthalmology is not covered in any great detail until a young doctor-in-training decides to make that field his or her specialty.

But the Friends of the Congressional Glaucoma Caucus Foundation's SSSPs give young medical students the chance to get out in the world and actually see and help people. We have been told, time and time again, that by offering this program we make it possible for medical students to get a real start on their medical careers. Through this program they are learning about new techniques in screening and detection, and new treatments for diseases of the eyes. Many of our student volunteers have gone on to specialize in ophthalmology. All of our student participants have a special insight into the insidious nature of glaucoma, how it can devastate a person's life and how early treatment can prevent such a tragedy. All of this bodes well for the future. A new generation of doctors is developing in America, and the Friends of the Congressional Glaucoma Caucus Foundation's Student Sight Saver Program can take a lot of credit for that.

I am proud of my role as Chairman of the Board of the Friends of the Congressional Glaucoma Caucus Foundation and especially of the Student Sight Saver Program. I congratulate my friend and colleague Dr. Eve Higginbotham for her part in creating this terrific program. The future of ophthalmology is in great hands.

Anthony Pisacano, M.D.

To All Medical Students:

Almost three decades ago, when I was a first year medical student, I recall feeling a little overwhelmed by the myriad of opportunities that medicine offered. Patient care and research were two paths that were easily identifiable. Service was a path that was not as well defined and certainly not highlighted within the ivory towers of academic medicine.

We all chose our careers in medicine for a variety of reasons. For those of you who chose this path to serve your fellow man and “give back” to the community in a tangible way, then you will love participating in the Student Sight Saver Program.

As first and second year medical students, your medical knowledge is analogous to a newly planted seed. However, you have deeper understanding of the “human condition” than you realize. The Student Sight Saver Program gives you fertile ground to grow your knowledge and use it to make a difference in another person’s life. The first time you identify an unsuspecting person’s suspicious optic nerve or visual field, it will change your life. You will have discovered one of the first secrets of being a good doctor, the joy of serving. Welcome to the Student Sight Saver Program.

Eve Higginbotham, M.D.



ACKNOWLEDGMENTS

The book that you hold in your hands began its existence as the personal notes of Ms. Dawn Medler, who worked with the Arizona Eye Care Collaborative for more than two years. The Eye Care Collaborative screened people in Phoenix and Tucson and other parts of the Southwest. Dawn collected the kinds of information that she knew she would need over and over again. Naturally enough, other people in the program noticed Dawn's "book" and asked for her help with problems they faced.

Dawn quickly saw that her notes would help everyone, so she collected her material into a binder and distributed her notes to everyone who was involved with the Friends of the Congressional Glaucoma Caucus Foundation's screenings or Student Sight Saver Programs in the southwest. These binders helped several medical schools set up their own Student Sight Saver Programs, and were jealously guarded,

We here at Friends of the Congressional Glaucoma Caucus Foundation headquarters heard of these notes in late 2003, and we asked Dawn for a copy. We immediately saw that Dawn's work would be a wonderful resource for everyone doing screenings for the Friends of the Congressional Glaucoma Caucus Foundation, and we asked Dawn's permission to distribute her work all across the country. Dawn very graciously agreed, and even pointed out places where she thought her notes needed to be expanded.

We have made those additions and also a few more, and here you have the resource that we have developed. Our thanks go, first of all, to Dawn Medler, who has left the Arizona Eye Care Collaborative to enroll in medical school; to Dr. Eve Higginbotham, who first conceived the Student Sight Saver Program at the University of Michigan; to Dr. Randall Bloomfield, who oversees all Friends of the Congressional Glaucoma Caucus Foundation publications; and to all the other experts we consulted – too many to name individually – in compiling this reference.



Section 1: The Importance of Glaucoma Screening

Why Screen for Glaucoma?

Wilson and Jungner¹ summarized requirements for screening which we at the Friends of the Congressional Glaucoma Caucus Foundation have modified and applied to glaucoma. We offer free glaucoma screening for the following reasons:

1. Glaucoma is an important health problem that can lead to blindness;
2. There are suitable tests which are safe, fast, and cheap;
3. Patients will accept these tests after they are explained to them;
4. There is an early asymptomatic stage which can be identified and treated; and
5. There are acceptable medical and surgical treatments for patients with glaucoma.

Furthermore, the human and economic costs of glaucoma are heartbreaking and staggering. Research has shown that:

- Up to 3,000,000 Americans, age 40 and over, have glaucoma;²
- As many as 67,000,000 people worldwide have glaucoma;³
- Approximately half of all affected Americans do not even know they have glaucoma;³
- Untreated, glaucoma is the second leading cause of vision loss in the world;^{2,3,4}
- Glaucoma is the leading cause of blindness in African Americans;⁴
- Glaucoma causes blindness in African Americans six to eight times more often than in Caucasians;⁵
- Blindness from glaucoma occurs on average 10 years earlier in African Americans than in Caucasians;⁵
- Glaucoma affects Hispanics and Latinos at a higher rate, as well;
- Glaucoma accounts for 700,000 physician visits per year;²
- Blindness from glaucoma has a significant economic cost to the United States;⁶
- Lost wages and lost productivity costs run into the billions of dollars; and
- “Quality of life” issues, though impossible to gauge, affect every blind person.

Sources:

1. Wilson, J.M.G. and Jungner, F.: Principles and practice of screening for disease (Public Health Papers No. 34). WHO, Geneva, 1968.
2. Prevent Blindness America
3. Quigley: Number of People with Blindness Worldwide. 1996
4. National Eye Health Program/National Institutes of Health
5. American Academy of Ophthalmology
6. NEI, Report of the Glaucoma Panel, Fall 1998

Benefits to Students

- Interact early and educate patients
- Learn how to take a history
- Learn how to examine the eye
- Learn effective communication skills
- Learn to build trust
- Learn about a career in ophthalmology
- Practice taking blood pressures
- Understand the power of disease prevention
- Identify patients at high-risk for vision loss
- Build rapport with community
- Work alongside world-renowned doctors
- SAVE SIGHT!



Section 2: The ABCs of a Student Sight Saver Program

History of the Student Sight Saver Program

The Student Sight Savers Project (SSSP) was originally created by Dr. Eve Higginbotham at the University of Michigan Medical School in the early 1990s, primarily to expose medical students to the field of ophthalmology at an early stage of their career. The program involves medical students and ophthalmologists who volunteer to screen individuals in public settings at no charge. The program begins in the fall of each year. Although all classes are encouraged to participate, the SSSP is primarily focused on the second year class. A general session is initially held to introduce the students to the group of eye diseases that comprise the general diagnosis of glaucoma and to the methods used in detecting glaucoma in a screening environment. Screenings are conducted in such settings as public institutions, churches, shopping malls, the YMCA and other locations. Typically the program takes one day each month and there are about 8 to 12 screenings throughout the year.

The SSSP is a program that facilitates understanding and exposure of medical students to glaucoma and the field of ophthalmology. In addition, the SSSP has enhanced community education and involvement in diagnosis and treatment of this disease. The SSSP is a dynamic program that has now been implemented on a national level. Each medical school listed below has a participating program funded by grants from the Friends of the Congressional Glaucoma Caucus Foundation.

University of Arizona Medical School
University of Buffalo School of Medicine
University of California San Francisco
Medical School
The Chicago Medical School
Creighton University, Omaha
Charles R. Drew University Health Science
Center, Los Angeles
Columbia University - Harlem Hospital
Center
Duke University School of Medicine
Eastern Virginia Medical School
University of Florida Medical School
Georgetown University Hospital Medical
Center
Georgetown University School of Medicine
George Washington University
Medical College of Georgia
Harvard University Medical School

Howard University Hospital and Medical
School
Indiana University School of Medicine
University of Maryland School of Medicine
Mercer University School of Medicine
University of Michigan, Kellogg Eye Center
University of Minnesota College of Medicine
NY Hospital Queens, Cornell Medical School
University of Utah
NYU, Manhattan Eye, Ear & Throat Hospital
Northeastern Ohio University School of
Medicine
University of Texas Health Science Center
University of Tennessee Health Science
Center
Thomas Jefferson University Medical School
/ Wills Eye Hospital
Vanderbilt University
West Virginia University School of Medicine
Wake Forest University School of Medicine

Details of an Student Sight Saver Program Grant

A two-year Student Sight Saver Program involves a grant from the Friends of the Congressional Glaucoma Caucus Foundation of more than \$19,000, with \$9,000 of that amount as a cash stipend of \$4,500 per year to be used for whatever expenses are incurred by the program. The Foundation will purchase and ship to the medical school certain equipment with a value of approximately \$10,000:

- Humphries FDT
- Titmus Visual Acuity device
- Tonopen or Non-contact Tonometer
- Panoptic Ophthalmic Scope

To augment the SSSP agreement, there are two additional smaller grants available to the medical school. The first is a \$2,000 grant to fund two lectures on ophthalmologic subjects during the academic year: one on glaucoma as a disease and the other on glaucoma screening procedures. To receive this grant, the coordinator of the Student Sight Saver Program must apply and inform the Foundation of the school's plans for the lectures.

The second is a special incentive grant. January of each year is "National Glaucoma Awareness Month." As part of that national effort, the Friends of the Congressional Glaucoma Caucus Foundation offers a \$1,000 bonus stipend to any SSSP group that schedules and holds at least two screening events during January. This grant may be applied for retroactively. All the Foundation requires is the screening forms as proof of two or more screenings during Glaucoma Awareness month.

Words of Wisdom from an SSSP Veteran

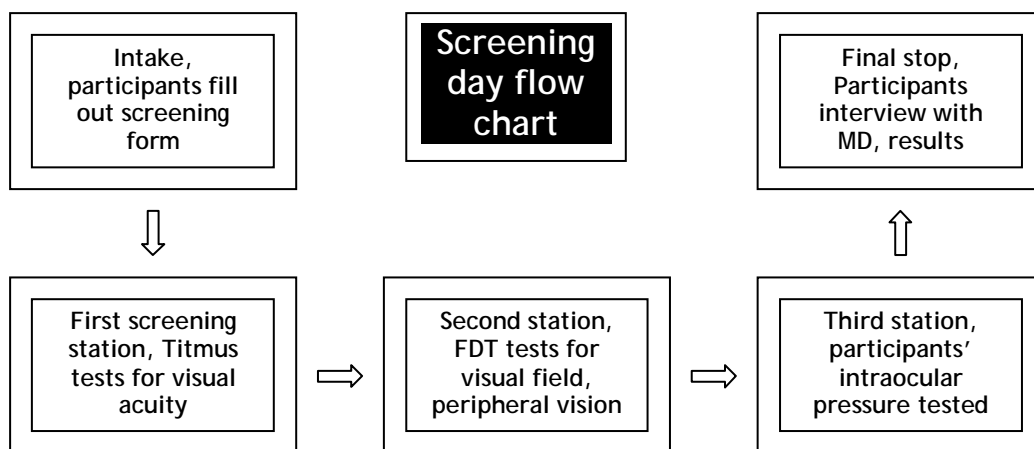
One of the first medical students to participate in a Student Sight Saver Program with Dr. Eve Higginbotham was Ehsan Sadri, who is now a practicing M.D. in Los Angeles, California. Dr. Sadri sat with new medical students in Sarasota, Florida and answered their questions about SSSPs. Here is a condensed transcript of that dialog.

- Q. When you set up a screening, what are some useful things to remember?
- A. First, the performing of visual acuity testing should be standardized to avoid errors. Second, make a check list of supplies that you are going to need, e.g. adult and pediatric size blood pressure cuffs, hand sanitizers, or disposable gloves and alcohol wipes, and check that list before you go to a screening site. Third, allocate enough students to cover all the shifts. Next, make sure that the screening site location is noted on each history and consent form. Finally, make certain the consent form is signed.
- Q. How are screening sites chosen?
- A. Potential screening sites may be identified by calling community clinics, senior centers, homeless clinics, concerts or holiday events. It is important to be persistent and not give up. Also, remember that you are working with the “Friends of the *Congressional* Glaucoma Caucus Foundation” and call your local member of Congress. His or her office staff will probably be happy to assist you.
- Q. What do you do after you have found a screening site?
- A. Visit the location and scout it out. Look to see where power outlets are, where the tables should be set up, and how the traffic flow should be set up. Check out the parking situation. Make sure that elderly people will be able to negotiate any halls or stairwells. Basically, make sure the place you found will really work for what you are trying to do.
- Q. Are there any specific pitfalls to watch out for when choosing a screening site?
- A. Malls, drug stores, nursing homes and neighborhood corner locations have required indemnification by our school or liability insurance. This is because we are students. Health fairs are more accommodating.
- Q. How should we prepare for screenings?
- A. You should conduct a mock screening program about three to four times annually. This will enable you to attract and train new members. They will thus become familiar with the equipment. The system and the rhythm of screening as well as the purpose of the program. It is important to know what to expect of the population to be screened. This will help you to decide how many students will be needed. Past screening coordinators are a valuable resource. You should listen to them.
- Q. How long does it take to learn to perform a screening?
- A. It takes from 30 minutes to an hour to familiarize yourself with the equipment and the process. You should try screening other students first, to get really proficient before you actually screen strangers.

- Q. Who organizes the screenings?
A. Usually, a core group of highly interested students serve as coordinators. They contact the people at the potential sites, and set up dates for screenings. E-mails are sent to students inviting them to help with the screenings.
- Q. Who runs the Student Sight Saver Program?
A. Actually, you do. The students run the program under the supervision of faculty or ophthalmology residents.
- Q. If we set up a local Student Sight Saver Program, how often should we have local glaucoma screenings?
A. Screenings are usually conducted once monthly.
- Q. Who do you have to provide supervision?
A. Generally, residents serve in that capacity.
- Q. How do you refer patients who are suspected of having glaucoma?
A. There may be eye care centers that provide eye care free or at a nominal cost. Check with the department of ophthalmology at your medical school. They probably will know.
- Q. What has the biggest problem we have encountered in screening people?
A. The biggest problem is being accepted by the people you plan to screen. You have to gain their trust and you have to get them to understand that screenings are in their own best interest.
- Q. What about follow-up?
A. The institutions that you referred the patients to should be able to provide this information.
- Q. What do you consider to be the “gold standard” criteria for screenings?
A. I think there are four vital considerations that must be met:
1. Efficient and effective training in glaucoma screening procedures.
 2. Clear and simple handouts about glaucoma are prepared for those who are to be screened.
 3. Empathetic counseling of those who are screened.
 4. Diagnostic testing and follow-up is provided.

Screening Day Procedures

A Student Sight Saver Program glaucoma screening needs to be well organized from the very start of the day. Before the first participants arrive, set up the equipment and the waiting area in such a fashion that allows for simple, easy flow. Try to keep the participants moving in the same direction, beginning with the seating area, where they can fill out their forms. The participants can then move to tables where the screening equipment is set up. From there, they should see the attending physician doing the pressure screening. Finally, the participant should have a short interview with one of the screeners who will explain the results to him or her. From there, the participant should have a clear exit.



The most important message that the participant must receive is the necessity for proper and prompt follow-up if the screening results are at all suspicious. The exit interviewer must stress this strenuously, and should give referrals for follow-up.

Important reminders:

- Make sure that every participant fills out and signs a screening form.
- Bring lots of ballpoint pens with you! Clipboards are also useful.
- Screening forms are available in English and Spanish.

When speaking to participants, please remember to:

- Speak slowly, clearly and concisely.
- Listen patiently and empathetically to their concerns.
- Respect the privacy of the participant.
- Whenever possible, end the discussion on a positive note.

As you conduct these screenings please keep in mind two important thoughts. First, the notion of “Cultural Sensitivity” encourages us to overcome the artificial barriers placed between patients and health care providers. It invites us “to walk in the shoes” of our patients and to understand their cultures.

There may be times that require an empathic translator to help you conduct the screening, but your appreciation of the patient’s background is essential if you hope the encounter to be successful. The willingness to trust physicians is very important. Your remarks should be simple, straightforward and free of buzz words. All medical personnel should be sensitive to the hopes and fears of the patients. The staff of your medical school will be of tremendous help in aiding you to understand the dynamic of provider patient encounters.

The second idea to remember is that there are health care disparities in this world, a tragedy that you may encounter in screening patients. There may be patients that have never had their eyes checked for many reasons. They have fallen through the cracks in health care.

As part of your workup, do not be judgmental and avoid being critical of this situation. Be empathic, be supportive, and accept the challenge of helping to correct the deficiencies in their care. Your intervention may help to save their eyesight. To be able to make such a difference is often one of the reasons that students chose to go into medicine.

Being a part of a Student Sight Saver Program can truly be a rewarding experience in which your skills and ability to communicate will be deeply appreciated.

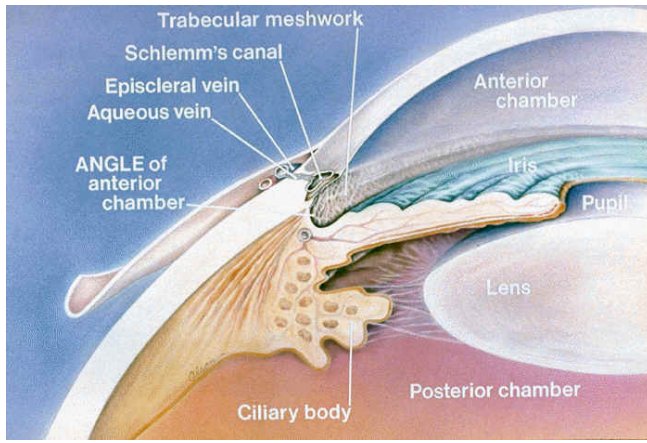


Screenings can be conducted in several different venues. They can be held on the campus of your medical school, at senior centers, at churches, at local health clinics or hospitals, at shopping centers, or at other locations in the community. But the Friends of the Congressional Glaucoma Caucus Foundation has a unique venue to offer to Student Sight Saver Programs, and that is one of our Mobile Eye Screening Units (pictured at left). The Foundation currently has three MESUs on the road. If your medical school is within reach of one of our Units, we will be

happy to schedule a visit to your community with the MESU and to conduct screenings on board.

A Short Description of Glaucoma

Glaucoma occurs when there is progressive damage to the eye leading to blindness. This may be caused by increased intraocular pressure on the optic nerve. Patients may, however, develop glaucoma with normal or even low pressures.

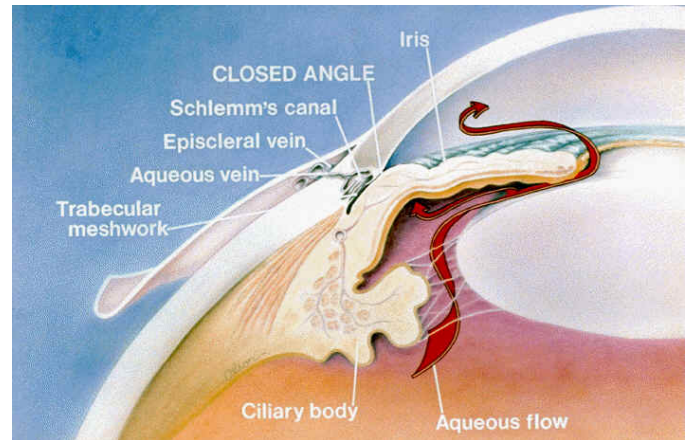


Two of the more common forms of glaucoma are *open angle* and *closed angle glaucoma*. In open angle glaucoma with increased intraocular pressure, the pressure elevation occurs because the outflow is inadequate even though the anterior chamber angle appears to be open.

Open Angle Glaucoma

In closed angle glaucoma elevated intraocular pressure occurs when the normal drainage is blocked.

Closed Angle Glaucoma



Source: Terebeck, J. "Glaucoma," in *the Merck Manual of Diagnosis and Therapy*. Beers, MH, and Berkow, R, Editors.

NOTE: You may wish to learn more about glaucoma from your professors or other texts. Here are some good reference works:

Epstein, DL, Allingham, RR, and Schuman, JS: *Chandler and Grants Glaucoma*. 4th Edition. Baltimore, Williams and Wilkins, 1996.

Ritch, R, Shields, MB, Krupin, T: *The Glaucomas*. 2nd Edition. St. Louis, Mosby, 1996.

Stamper, RL, Lieberman, MK, and Drake, MV: *Diagnosis and Treatment of Glaucomas*. 7th Edition. St. Louis, Mosby, 1999.

Shield, MB. *Textbook of Glaucoma*. 4th Edition. Baltimore, William and Wilkins, 1998.



Normal vision with good peripheral fields.



Vision affected by glaucoma, But central, straight-ahead vision is still clear.



Vision almost completely occluded by what is now irreversible glaucoma.

Glaucoma is called the “silent thief of sight” because it is so subtle when it begins, insidiously robbing its victims of their vision while displaying no overt symptoms. Glaucoma doesn’t hurt or cause blurred vision. It can only be detected in time to be stopped by looking for the disease in its earliest stages. That’s what makes the Friends of the Congressional Glaucoma Caucus Foundation and its Student Sight Saver Programs so important. Since its inception, the Foundation’s screening program has tested the vision of more than 30,000 men and women all across the United States. Some 16% were found to have some evidence of possible glaucoma and another 15% showed signs of other vision-threatening diseases. (Pictures courtesy of http://www.usc.edu/dept/gero/AgeWorks/shared/vision_simulator/vision.html)

Using the Equipment

The Friends of the Congressional Glaucoma Caucus Foundation has set up a general methodology for doing screenings for all settings. In the Student Sight Saver Program, screenings are done using equipment purchased for the Medical School by the FCGCF. The following pages give a quick manual on the use of the most common screening equipment:

1. Portable Titmus Tester
2. Portable FDT Visual Field Instrument
3. Panoptic Ophthalmoscope
4. Mentor Tono-Pen XL
5. Non Contact Tonometer

Portable Titmus Vision Tester



The portable Titmus Vision Tester is used to measure visual acuity. The Titmus mimics the use of the Snellen Eye Chart, which you have probably seen hanging on an exam room wall.

Like the Snellen eye chart, the Titmus Vision Tester has a series of letters or letters and numbers, with the largest at the top. As the person being tested reads down the chart, the letters gradually become smaller. The patient looks into the tester and reads the letters or numbers. There are seven lines for the patient to read, each corresponding to a level of visual acuity:

| Line Read | Visual Acuity |
|-----------|---------------|
| Line 1 | 20/200 |
| Line 2 | 20/100 |
| Line 3 | 20/70 |
| Line 4 | 20/50 |
| Line 5 | 20/40 |
| Line 6 | 20/30 |
| Line 7 | 20/20 |

What this means, of course, is that if the patient can read Lines 1, 2, 3 and 4, but *not* line 5, then the patient's vision is 20/50.

One eye is tested at a time and we always start testing with the right eye.

Humphrey Portable FDT Visual Field Instrument



This reference is designed to help you understand the capabilities and operation of the Humphrey FDT Visual Field Instrument with Welch Allyn's Frequency Doubling Technology. To achieve optimal results we recommend that you read through the manual and/or receive hands on training from a qualified technician.

Instrument Components

The instrument has seven buttons to control the operation of the instrument, located adjacent to the Operator's Liquid Crystal Display (LCD).

- Four **BLUE** Operator Buttons along the left side of the Operator LCD Display
- A **GREEN** Cancel/Backup Button below the four BLUE buttons.
- Two operator LCD Display Contrast Adjustment Buttons (Down Arrow and Up Arrow) adjacent to the Contrast Symbol and directly below the LCD Operator Display.

Further below the Operator LCD Display is a PAPER Access Door which opens to provide access to the internal thermal printer for replacement of paper, when needed.

FDT Overview

FDT isolates a subset of retinal ganglion cell mechanisms in the magnocellular (M-cell) pathway. These M-cells have large diameter fibers and comprise only 3% to 5% of all retinal ganglion cells. The damage of these cells in the disease process makes FDT efficient and effective for the detection of visual field loss.

Preparing for a Patient Test

1. Select RUN PATIENT TESTS from the FDT MAIN MENU
2. Enter the patient's AGE – select ACCEPT SETTING when correct AGE is displayed
3. The instrument has a sliding Patient Visor which aids in the selection of the eye to be tested and automatically occludes the opposite (untested) eye. Slide the Patient Visor to the right eye test position.
4. Place the Response Button in the patient's hand and show them how to press it.
5. Ask the patient to place forehead on the Forehead Rest and look into the Patient Eyepiece at the Video Screen.
6. Adjust the height of the chair or table (or both) to obtain a comfortable position for the patient.
7. Explain the Test Procedure to the Patient. Here is language you can use:
 - a. "A demonstration of the test is running now. Can you see the black dot in the center and the entire lit video screen? You need to stare at the black dot in the center of the screen during the entire test."

- b. “From time to time, you will see patterns of flickering black and white vertical bars that will briefly appear in different areas of the screen. The patterns will sometimes be very faint and at other times be very distinct. You are not expected to see the bar patterns at all times. Each time you see the flickering black and white vertical bars of one of the patterns, press the response button once. Can you see these patterns in the demonstration running now? You may practice now by pressing the Button to respond to the patterns.”
 - c. “It is OK to blink and a good time to blink is when you press the Response Button. If you need to rest or ask questions during the test, you can pause the test at any time by pressing and holding down the Response Button. Do you have any questions? Do you understand how to take the test?”
 - d. “I will now start the test. There will be a few brief flashes and then the test will begin. Press the Response Button once each time you see the flickering black and white vertical bars of one of the patterns, even if the bars are very faint. Please remember to stare at the black dot in the center of the screen during the entire test.”
8. Select RUN SCREENING C-20 TEST (for the right eye)
NOTE: There are other tests that can be run with this unit, but the Screening C-20 Test is the one used by the Friends of the Congressional Glaucoma Caucus Foundation.
 9. Slide the Patient Visor to the left eye test position at the end of the right eye test.
 10. Select RUN SCREENING C-20 TEST (for the left eye)

Displaying and Printing Test Results

You can either view the results on the LCD screen and/or print them out from the test results menu. At the end of a test, the test results menu will automatically appear on the LCD and then the results will be automatically printed.

Understanding the Screening C-20 Test Results

A plot of the 17 visual field locations tested will be printed and displayed on the LCD. Each test location will be either clear white or will have one of three possible levels of shading.

For our purposes we categorize these results based on the number of shaded areas (please refer to the FDT section of our glaucoma screening forms):

1. All white, meaning no shaded areas equals a normal exam
2. One or two shaded areas equals a suspect exam
3. Three or more shaded areas equal an abnormal exam.

NOTE: After each participant has been tested, the screening device *must* be wiped down using an alcohol wipe to ensure sterilization of the equipment.

Direct Ophthalmoscopy with the Panoptic Ophthalmoscope

The advantages and characteristics of Direct Ophthalmoscopy are:

- Upright image of retina
- Small field of view (5°)
- Not stereoscopic (monocular)
- Good for examining optic nerve, blood vessels of posterior pole

Some important tips for using the ophthalmoscope:

- Use same eye as examining in patient (that is, use your left eye to look into the patient's left eye)
- Wear your glasses/contact lenses
- Set focusing lens to 0
- Start with brightest tolerable light, large spot size (if small pupil, smaller spot)
- Check red reflex at 2 feet
- Approach the eye; examine at 2-3 cm





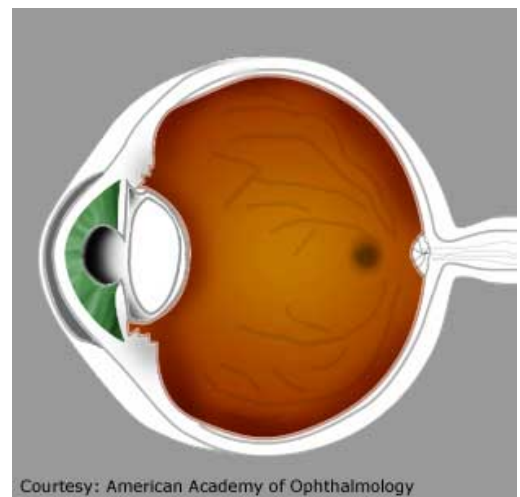
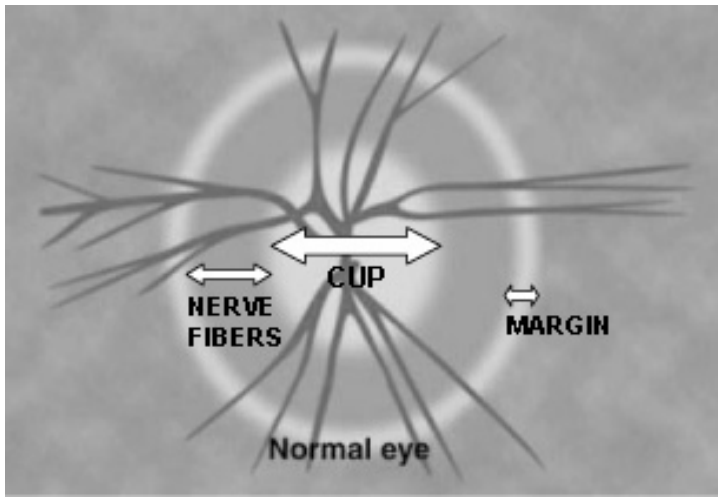
Checking the red reflex to detect any opacities (i.e., cataracts)

- Focusing on the optic disc
- Aim for occiput (15°)
- Dial focusing lens until clear image of retina appears
 - Power should correspond to pt's refractive error
 - Red = Minus (nearsighted or myopic)
 - Green/White = Plus (hyperopic)

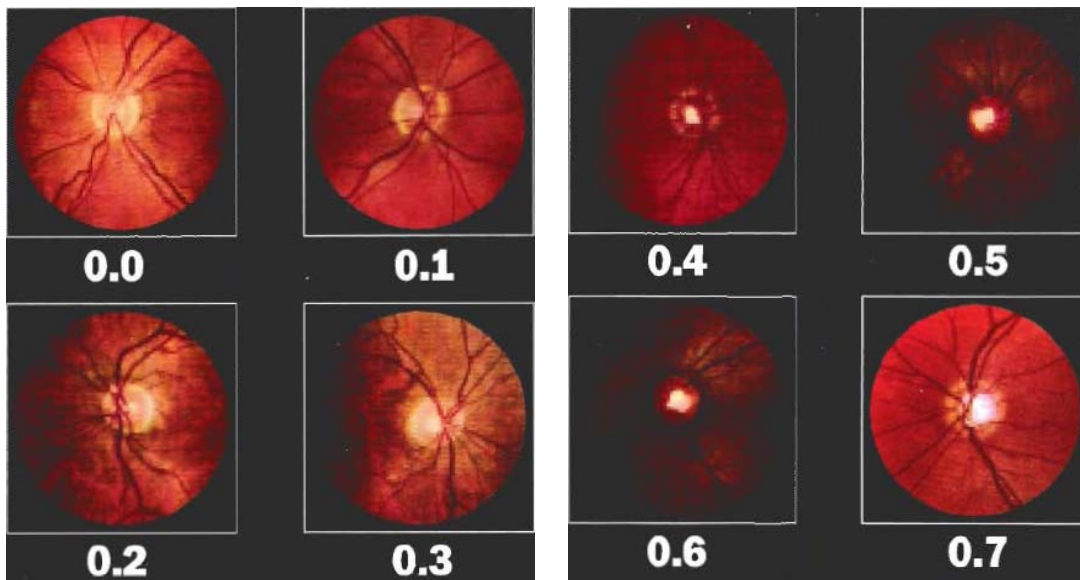
Trace vessels to optic disc

Optic Disc

- Shape
 - Oval
 - larger vertical diameter
- Color
 - Pink = normal
 - Pale = abnormal
- Cupping
 - Depth of cup tough to assess
- Contour
 - Sharp vs. blurred margins



- Macula
 - Move temporal from optic disc
 - See darker area
 - Note pigmentary changes, drusen, light reflex
- Red-free Filter (“Green”)
 - Useful in assessing C:D ratio
 - Enhances visibility of retinal nerve fiber layer
- Cobalt Blue Filter
 - Enhances fluorescein dye applied to cornea or conjunctiva



Cup-to-Disc Ratio Guide

Mentor Tono-Pen XL



The Mentor Tono-Pen is used to measure the pressure in the eye. We refer to this as the Intraocular Pressure (IOP).

The body of the instrument is specially designed to fit comfortably in the user's hand, facilitating fast and accurate measurements. The stainless steel probe on the Tono-Pen contains a solid state strain gauge which converts IOP to an electrical signal.

Calibration

Calibration should only be performed on the Tono-Pen once daily, unless otherwise indicated by the instrument. The Tono-Pen does not require calibration after every patient examination.

To prepare a patient for an IOP measurement:

1. Instill a drop of topical anesthetic onto the eye to be examined.
2. Position the patient, seated or supine, in front of a fixation target; or have the patient fixate on a point of reference (i.e. ear, nose, distant object) to minimize eye movement.

IMPORTANT NOTE: Prior to performing the measurement, the probe tip must be covered by a latex protective membrane. A new cover should be used for each eye.

To perform an IOP measurement:

1. Instruct the patient to look straight ahead at the fixation target with his/her eyes fully open.
2. Hold the Tono-Pen unit as you would a pencil.
3. Position yourself to facilitate viewing of the probe tip and patient's cornea where contact will be made. For normal corneas, central corneal contact is recommended.
4. Brace the heel of your hand on the patient's cheek for stability while holding the Tono-Pen unit perpendicular to and within ½ inch of the patient's cornea.
5. To initiate an IOP measurement, depress the Operator's Button, once and only once.
 - a. Initially you will see a brief display of [8.8.8.8.]. This is a self-test of the LCD (Liquid Crystal Display).
 - b. If a momentary display of [CAL] is seen, followed immediately by a single row of dashes [- - -], it indicates that the Tono-Pen requires calibration before it will measure.
 - c. If a double row of dashes [= = =] is seen, it indicates that the Tono-Pen is ready to measure IOP. Proceed with application within 15 seconds.

6. Once activated, after [= = =] is displayed, touch the Tono-Pen unit to the cornea lightly and briefly, then withdraw. Repeat several times. The corneal surface needs only to be momentarily contacted; indentation is not required and may lead to inaccurate readings.
7. A chirp will sound and a digital IOP measurement will be displayed each time valid reading is obtained. The single horizontal bar at the bottom of the LCD, indicating statistical reliability, will not be displayed with each single IOP measurement.
8. After four valid readings are obtained, a final beep will sound and the averaged measurement will appear on the LCD along with the single bar denoting statistical reliability.

Non-contact Tonometer



One instrument used to measure the Intraocular Pressure (IOP) in the eye is the non-contact tonometer. It is an applanation tonometer and works on the principle of a time interval. Measuring the time it takes from the initial generation of the puff of air to where the cornea is exactly flattened (in milliseconds) to the point where the timing device stops. Measurement is accomplished because it takes less time for the puff of air to flatten a soft eye than it does a hard eye.

Procedure for IOP Measurement

1. Turn the power button to the on position and allow it to warm up for 30 seconds (usually once the device is turned on, it should be left on all day).
2. Adjust the eyepiece until the reticule is in good focus.
3. Push the button (D) to demonstrate to the patient what the air and sound are like. Have the patient hold their finger up in front of the instrument and trigger the air-pulse. At the same time note the reading on the display screen, for the NCT ii you should get a reading of 50 mmHg (+) or (-) 1 mmHg if the instrument is calibrated correctly.

NOTE: During the next three steps the operator should observe the patient and instrument from the side.

4. Adjust the patient's height in the chin rest so that their outer canthus is aligned with the black mark. Make sure the patient's forehead activates the forehead switches and that the indicator light is on.

5. Adjust the instrument height so that the light from the instrument objective shines in the center of the patient's pupil. Raise the safety lock, have the patient close their eyes and move the instrument forward until you see a donut shaped bright area with a shadowed center on the patient's lid, then release the safety lock and make sure the instrument will not move any farther forward.
6. Have the patient open his or her eyes and again center the light so that it shines in the center of the patient's pupil. The patient should be able to see the red dot target clearly, if not, adjust the Rx wheel for the patient's approximate spherical equivalent.

POWER WHEEL SETTINGS:

- a. Silver dot towards you = Plano correction
 - b. Red dot towards you = -3 D correction
 - c. Next click = -10 D correction
 - d. Black dot towards you = +4 D correction
 - e. Next click = +14 D correction
7. Have the patient open his or her eyes wide (suggest that the patient "look surprised") and look right at the red dot or target. Your emphasis should now be on alignment and focusing of the dancing red target within the black reticule. The target you see should have a white background with a central red dot. The red target should be moving if it is stationary then you are either too close or too far away from the patient's eye. You should have one hand on the height adjustment with your index finger over the air puff control (trigger) and the other hand on the joy stick for lateral movements. Once the red dot is inside the reticule and in focus, depress the air puff trigger and you should get a reading on the display screen. This should be accompanied by a red light display located at the bottom of the display screen if the reading is accurate (NCT I only). The NCT II does not have this display light nor does it have an external fixation light.

You should take two more measurements to verify the readings accuracy (always allow 5 to 8 seconds between triggerings or the instrument will shut down). If you get readings of 18, 19, 22, and 18 the 22 reading should be disregarded. The 22 reading is most likely due to venous pulsation or lid blink. Venous pulsation can cause as much as a 4mmHg increase in IOP readings and a forceful blink can increase IOP read by as much as 10 mmHg. If you find a marked difference in readings between the two eyes and the higher readings are on the first eye you measured you should repeat those readings. It is not unusual for the first eye's measurements to be higher and this is mainly due to the anxiousness of the patient and the co-contraction of the extra ocular muscles to the feel and sound of the air puff or the patient squinting; see note in the handout under procedure. Remember, as always, a difference of 3mmHg between the two eyes should be considered suspect. Suspect: glaucoma, iritis, iridocyclitis, or retinal detachment.

The front lens of the objective must be cleaned when the red dot you are trying to focus appears dim or unable to be focused. This objective lens unscrews from the instrument and the lens can be cleaned with a Q-TIP and tap water and then dried with a Q-TIP. The half silvered mirror that you can see once the objective has been removed will often need to be cleaned too. This is done in the same way only using alcohol on the Q-TIP and then allowing it to dry smoothly.

Supplies and Equipment Used

Ophthalmologic Equipment:

- FDT Machine
- Pen Lights
- Portable Indirect Ophthalmoscope and lenses
- Spare Light Bulbs for Machines
- Tonopens

Drug and Drops:

- Fluorescein Strips
- Procaine (Proparacaine Hydrochloride)

Forms and Educational Materials:

- Friends of the Congressional Glaucoma Caucus Screening Forms
- Supplemental Screening Forms
- Patient Education Material (brochures on glaucoma, diabetic retinopathy, cataract, diabetes, hypertension, etc.)
- Chart of Eye

General-Screening Supplies:

- Alcohol Swabs
- Bottled Water
- Cotton-Tip Applicators
- Glasses Cleaner
- Gloves
- Hand Lotion
- Tissue Paper (Kleenex)

Office Supplies:

- Business Cards (of physicians and referral sources)
- Pens
- Prescription Pads for Medication
- Scissors
- Scratch Paper
- Stapler and Staples
- Tape (Duct Tape, Scotch Tape, and Clear Packing Tape)
- White Out

General:

- Extension Cords
- Surge Protector (power strip)

Cleaning Supplies:

- Antibacterial Wipes
- 409 All-purpose cleaner (or similar)
- Rags



Section 3: Tracking and Reporting



FRIENDS OF
The Congressional Glaucoma Caucus Foundation
Glaucoma Screening Form

WAIVER

Before participating in the glaucoma screening, you must read and sign this. This glaucoma screening is provided by medical or other trained personnel through the Glaucoma Screening Program of the Friends of the Congressional Glaucoma Caucus Foundation, Inc. (FCGCF), which assumes no risk or responsibility in connection with the procedure. By signing this waiver, you acknowledge that you understand that this is a screening for Glaucoma and this screening does not take the place of a dilated comprehensive eye examination. You also give permission for this information to be used for your further treatment and follow-up and that this information can be used for statistical analysis by the FCGCF.

Glaucoma screening is recommended by medical experts. Because glaucoma usually has no symptoms, routine eye exams are important in the early detection and treatment of glaucoma, the world's leading cause of preventable blindness. Results of the glaucoma screening will be given to you if there are any indications that you may need further care. In any event, you should consult with your eye doctor to ensure that you fully understand the meaning of the results.

Signature: _____ Date: _____

Name: _____ Date: _____
St Address: _____ Location: _____
City, St, Zip: _____ Company: _____
Phone: _____ Examiner: _____
Date of Birth: _____ Gender: M F
Congressional District: _____
Ethnicity African American Hispanic Caucasian Asian
Representative's Name: _____
/ Race: Other If Other, please specify: _____

Do you have insurance coverage? Yes No

Do you have an eye doctor? Yes No

GLAUCOMA

When was your last eye exam? _____ Have you been diagnosed as a Glaucoma suspect? Yes No
Have you been diagnosed with Glaucoma? Yes No If Yes, how long? < 1 Yr 1-5 Yrs 5-10 Yrs >10 Yrs
History of Glaucoma in your family? Yes No If Yes Immediate Family Extended Family Relation _____

DIABETES

Have you been diagnosed with Diabetes? Yes No If Yes, are you Insulin Dependent Non-Insulin
If yes, how many years have you been treated? 0-5 Yrs 5-10 Yrs 10-20 Yrs > 20 Yrs

BLOOD PRESSURE

Do you have high blood pressure? Yes No

If yes, how many years have you been treated? 0-5 Yrs 5-10 Yrs 10-20 Yrs > 20 Yrs

Average blood pressure (if known)? _____ Blood pressure today (if done)? _____

VISUAL ACUITY CC SC Right _____ Left _____ CUP-TO-DISC RATIO Right _____ Left _____

IOP Right Eye: _____ Left Eye: _____ Instrument Used Kowa (Perkins) Tonopen Other _____

Table with columns for Visual Field (Right Eye, Left Eye), (0 misses), (1-2 misses), (3+ misses), Unreliable, Total Misses, and Instrument Used (FDT, Other).

FINDINGS

Glaucoma Left Eye Right Eye
Glaucoma Suspect Left Eye Right Eye
Cataract Suspect Left Eye Right Eye
Other Ocular Disease _____

RECOMMENDATIONS

- Glaucoma Consultation
Schedule an appointment to see an eye care provider in the near future. Your screening results show that you are at risk of developing glaucoma.
 Ophthalmic Consultation
Schedule an appointment to see an eye care provider in the near future. Your screening results show that you have an eye disorder.
 Routine Follow-up Exam
Your screening results were within normal limits. Have a dilated eye exam every two years.

COMMENTS



AMIGOS DE La Fundación del Glaucoma de la Asamblea del Congreso Formulario para la Detección del Glaucoma

EXENCIÓN

Antes de participar en la detección del glaucoma, usted debe leer y firmar esto. Esta detección del glaucoma la lleva a cabo el personal médico u otro personal capacitado a través del Programa de Detección del Glaucoma de los Amigos de la Fundación del Glaucoma de la Asamblea del Congreso, Inc. (FCGCF), la cual no asume riesgo o responsabilidad alguna en conexión con el procedimiento. Al firmar esta exención, usted afirma entender que esta es una detección del glaucoma y que dicha detección no sustituye el examen completo de ojo dilatado. Usted también nos concede permiso para usar dicha información para su tratamiento y seguimiento posterior, y para que FCGCF la use con fines de análisis estadísticos. Los expertos médicos recomiendan la detección del glaucoma. Ya que el glaucoma generalmente no presenta síntomas, los exámenes rutinarios de los ojos son importantes para su detección precoz y el tratamiento, el glaucoma es la causa principal de la ceguera prevenible en el mundo. Los resultados de la detección del glaucoma se le dan a usted si algo indica que necesita atención posterior. En todo caso, debe consultar con el oftalmólogo para cerciorarse de entender el significado de los resultados.

Firma: _____ Fecha: _____

Form fields for personal information: Nombre, Dirección, Ciudad, Estado, Código Postal, Teléfono, Fecha de nacimiento, Género, Origen étnico / Raza, Fecha, Localización, Empresa, Examinador, Distrito congresional, Nombre del representante.

¿Tiene cobertura de seguro? Sí No ¿Tiene un oftalmólogo? Sí No

GLAUCOMA

¿Cuándo fue su último examen ocular? _____ ¿Le han diagnosticado alguna sospecha de glaucoma? Sí No ¿Le han diagnosticado glaucoma? Sí No Si es afirmativo, ¿cuándo? < 1 año 1-5 años 5-10 años >10 años ¿Hay historia de glaucoma en su familia? Sí No Si es sí Familia cercana Parientes Relación _____

DIABETES ¿Le han diagnosticado diabetes? Sí No Si es afirmativo ¿depende de la insulina? No depende Si es afirmativo, ¿desde hace cuántos años recibe tratamiento? 0-5 años 5-10 años 10-20 años > 20 años

TENSIÓN ARTERIAL ¿Tiene usted tensión arterial alta? Sí No Si es afirmativo, ¿desde hace cuántos años recibe tratamiento? 0-5 años 5-10 años 10-20 años > 20 años ¿Promedio de tensión arterial (Si sabe)? _____ ¿Tensión arterial actual (si lo ha hecho)? _____

AGUDEZA VISUAL CC SC Derecho _____ Izquierdo _____ RELACIÓN COPA-DISCO Derecho _____ Izquierdo _____

IOP Ojo derecho: _____ Ojo izquierdo: _____ Instrumento empleado Kowa (Perkins) Tonopen Other _____

Table with columns for visual field results (Normal, Suspicious, Abnormal, Poco fiable) and instrument used (FDT, Otro).

CONCLUSIONES

Glaucoma Ojo izquierdo Ojo derecho Sospecha de Glaucoma Ojo izquierdo Ojo derecho Sospecha de catarata Ojo izquierdo Ojo derecho Otras enfermedades oculares _____

RECOMENDACIONES

- Consulta de glaucoma
Consulta oftálmica
Examen de seguimiento rutinario

COMENTARIOS

Filling Out the Screening Form

The screening form can logically be divided up into five parts:

- Waiver
- History
- Demographics
- Exam
- Recommendations

I. Waiver

This form is more than a liability waiver; it permits treatment, follow-up, analysis. Form also makes clear that a screening is NOT a complete eye exam

- Please ensure form is signed

II. History

This section provides the Friends of the Congressional Glaucoma Caucus Foundation with all of the details needed to establish the where and when of each screening, and it provides information about each participant. Please assure all participants that personal information will not be shared with any other organization.

- Identification
- Contact information
- Screening location
- Insurance coverage
- Presence of regular eye care provider
- If last eye exam > 2 years ago then recommend follow-up in near future
- Record relation of family member with glaucoma

III. Demographics

This section is important because it enables the Foundation to run reports on the incidence of glaucoma in people of different races or with different contributing risk factors, such as diabetes or hypertension.

- Gender
- Ethnicity
- Diabetes – yes/no?
- Blood pressure – also gives students a chance to practice sphygmomanometry

IV. Results of Exam

Participants are mostly interested in the results of their exam. This section makes a record of those results, and will be the basis for Recommendations given to each participant in a Student Sight Saver Program screening.

- Visual acuity – Titmus vision screener
- Cup-to-disc ratio [optional]
- IOP (IntraOcular Pressure) [optional]
- Visual field – Humphrey FDT

V. Recommendations

On the basis of the screening exam, the following recommendations will be made:

- Glaucoma Consultation – suspicion of glaucoma
- Ophthalmic Consultation – suspicion of vision problem OTHER than glaucoma
- Cataract – evidence of cataract found
- Diabetes or Hypertension – if these conditions are being simultaneously screened with vision, then it may be that evidence of these conditions will be found
- Routine Follow-up Exam – participants with no signs of current problems are told to return for future screenings and to regularly see an eye care professional

VERY IMPORTANT NOTE: Forms must be completed and mailed to the Friends of the Congressional Glaucoma Caucus Foundation’s biostatistician within 10 days of each screening:

GHF Design, Inc.
45 West 60th Street
Suite 3D
New York, NY 10023
Attn: Geordie Frei

Glaucoma Screening Check List

Foundation Coordinator: _____

How did event come about: _____

Event/Institutional Coordinator: _____

Phone #: _____

Fax #: _____

Address: _____

Date of Event: _____

Time: _____

Location: _____

Mobile screening unit availability: _____yes _____no

Flyer: _____ Cong. Rep. invited via phone and/or flyer: _____

Banner: _____

Technicians secured: _____ Names of technicians: _____

of technicians: _____

Doctor's availability: _____yes _____no

Name of Doctor: _____

Affiliation: _____

Type of Event:

_____ Requested by MOC Cong. Rep. and District: _____

_____ Health Fair - indoor/outdoor _____

_____ FCGCF sponsored

_____ Hospital sponsored

_____ Church/Community Ctr.

Anticipated # of participants: _____



Friends of

The Congressional Glaucoma Caucus Foundation

Stanley J. Bud Grant, President / CEO

Anthony M. Pisacano, M.D., Chairma

Glaucoma Screening Summary

Summary Report:

As Of 9/16/2005

Prepared and Submitted by:

Geordie Frei, B.S.

Friends Of The Congressional Glaucoma Foundation

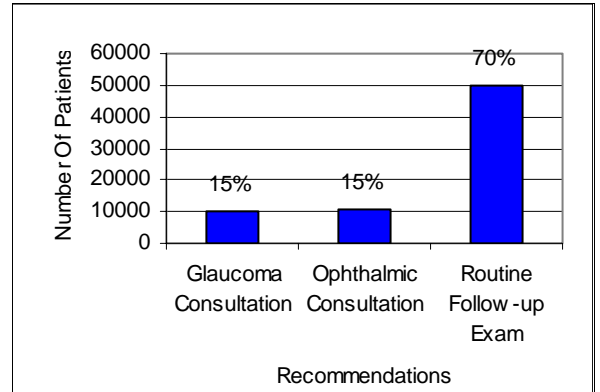
Director of Biostatistics

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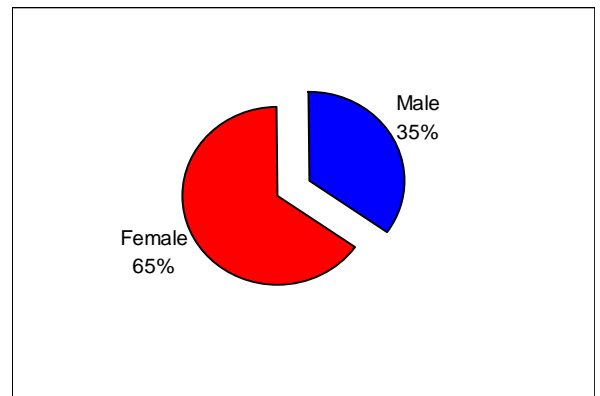
| | |
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Demographics

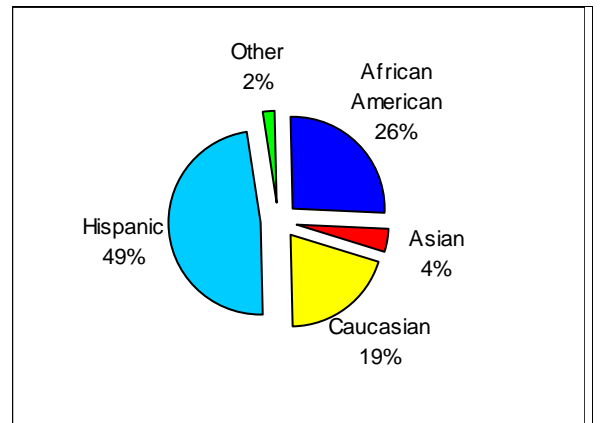
| Recommendation | Number Of Patients |
|--------------------------------|---------------------------|
| Glaucoma Consultation | 10343 |
| Ophthalmic Consultation | 10789 |
| Routine Follow-up Exam | 50195 |
| Total Patients Screened | 71327 |
| Total Screenings | 3028 |
| Total Screening Locations | 1648 |



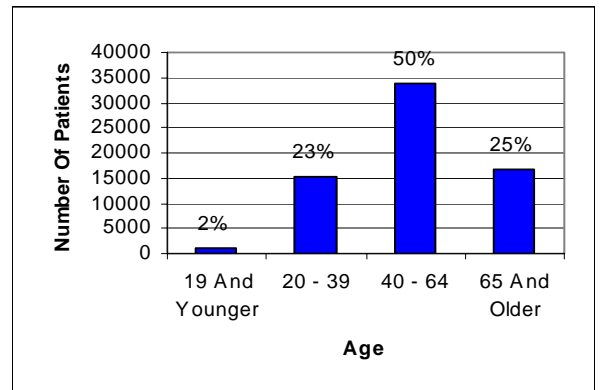
| Gender | Number Of Patients |
|---------------|---------------------------|
| Male | 24180 |
| Female | 45297 |



| Race | Number Of Patients |
|------------------|---------------------------|
| African American | 17143 |
| Asian | 2639 |
| Caucasian | 12474 |
| Hispanic | 31974 |
| Other | 1476 |



| Age Group | Number Of Patients |
|------------------|---------------------------|
| 19 And Younger | 1233 |
| 20 - 39 | 15321 |
| 40 - 64 | 33845 |
| 65 And Older | 16901 |
| Mean Age | 52 |



Eye Exam History

Eye Exam History

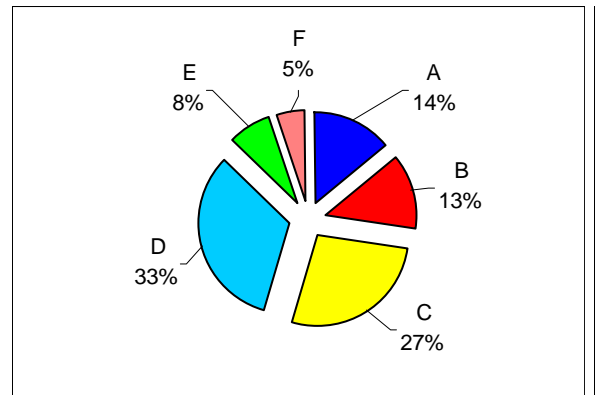
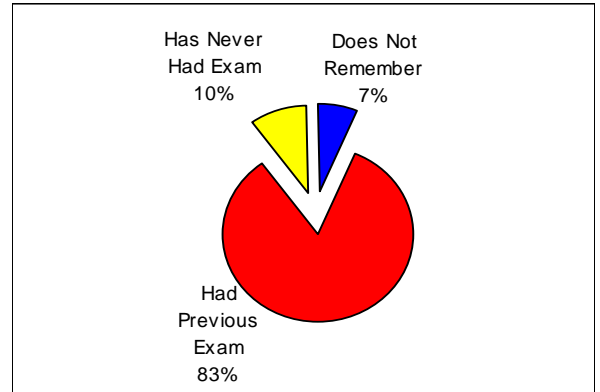
Number Of Patients

| | |
|--------------------|-------|
| Does Not Remember | 4228 |
| Had Previous Exam | 51739 |
| Has Never Had Exam | 6079 |

Previous Eye Exams

Number Of Patients

| | |
|----------------------------|-------|
| A - 0 Months To < 6 Months | 7381 |
| B - 6 Months To < 1 Year | 6816 |
| C - 1 Year To < 2 Years | 13985 |
| D - 2 Years To < 5 Years | 16933 |
| E - 5 Years To < 10 Years | 4096 |
| F - 10 Years And Greater | 2528 |



Eye Exam History - Detail Statistics, % By Race

Time Since Last Eye Exam vs Race

| Code | Time Since Last Exam | Caucasian | African American | Hispanic | Asian | Other | Total |
|---------------|-----------------------------|------------------|-------------------------|-----------------|--------------|--------------|--------------|
| A | 0 Months To < 6 Months | 1486(21%) | 2085(30%) | 3001(43%) | 245(04%) | 159(02%) | 6976 |
| B | 6 Months To < 1 Year | 1500(23%) | 1965(30%) | 2650(41%) | 183(03%) | 160(02%) | 6458 |
| C | 1 Year To < 2 Years | 2723(21%) | 3455(26%) | 6351(48%) | 457(03%) | 281(02%) | 13267 |
| D | 2 Years To < 5 Years | 3233(20%) | 3980(25%) | 8050(50%) | 532(03%) | 338(02%) | 16133 |
| E | 5 Years To < 10 Years | 777(20%) | 860(22%) | 2164(54%) | 103(03%) | 67(02%) | 3971 |
| F | 10 Years And Greater | 545(22%) | 570(23%) | 1208(50%) | 66(03%) | 47(02%) | 2436 |
| G | Does Not Remember | 804(20%) | 1317(33%) | 1583(40%) | 146(04%) | 115(03%) | 3965 |
| H | Has Never Had Exam | 375(06%) | 611(10%) | 4438(75%) | 341(06%) | 122(02%) | 5887 |
| Totals | | 11443(19%) | 14843(25%) | 29445(50%) | 2073(04%) | 1289(02%) | 59093 |

Time Since Last Eye Exam vs Age Range

| Code | Time Since Last Exam | 19 And Younger | 20 - 39 | 40 - 64 | 65 And Older | Total |
|---------------|-----------------------------|-----------------------|----------------|----------------|---------------------|--------------|
| A | 0 Months To < 6 Months | 119(02%) | 929(13%) | 2854(39%) | 3183(43%) | 7381 |
| B | 6 Months To < 1 Year | 114(02%) | 1083(16%) | 3206(47%) | 2174(32%) | 6816 |
| C | 1 Year To < 2 Years | 220(02%) | 2334(17%) | 7087(51%) | 3826(27%) | 13985 |
| D | 2 Years To < 5 Years | 211(01%) | 3368(20%) | 8985(53%) | 3734(22%) | 16933 |
| E | 5 Years To < 10 Years | 43(01%) | 1165(28%) | 2091(51%) | 667(16%) | 4096 |
| F | 10 Years And Greater | 15(01%) | 772(31%) | 1313(52%) | 360(14%) | 2528 |
| G | Does Not Remember | 110(03%) | 1341(32%) | 1748(41%) | 839(20%) | 4228 |
| H | Has Never Had Exam | 156(03%) | 2390(39%) | 2860(47%) | 423(07%) | 6079 |
| Totals | | 988(02%) | 13382(22%) | 30144(49%) | 15206(25%) | 62046 |

Time Since Last Eye Exam vs Gender

| Code | Time Since Last Exam | Male | Female | Total |
|---------------|-----------------------------|-------------|---------------|--------------|
| A | 0 Months To < 6 Months | 2354(32%) | 4895(68%) | 7249 |
| B | 6 Months To < 1 Year | 2076(31%) | 4649(69%) | 6725 |
| C | 1 Year To < 2 Years | 4242(31%) | 9534(69%) | 13776 |
| D | 2 Years To < 5 Years | 5461(33%) | 11244(67%) | 16705 |
| E | 5 Years To < 10 Years | 1567(39%) | 2491(61%) | 4058 |
| F | 10 Years And Greater | 1134(45%) | 1367(55%) | 2501 |
| G | Does Not Remember | 1724(41%) | 2450(59%) | 4174 |
| H | Has Never Had Exam | 2551(42%) | 3452(58%) | 6003 |
| Totals | | 21109(34%) | 40082(66%) | 61191 |

Eye Exam History - Detail Statistics, % By Time Since Last Eye Exam

Time Since Last Eye Exam vs Race

| Code | Time Since Last Exam | Caucasian | African American | Hispanic | Asian | Other | Total |
|---------------|-----------------------------|------------------|-------------------------|-----------------|--------------|--------------|--------------|
| A | 0 Months To < 6 Months | 1486(13%) | 2085(14%) | 3001(10%) | 245(12%) | 159(12%) | 6976(12%) |
| B | 6 Months To < 1 Year | 1500(13%) | 1965(13%) | 2650(09%) | 183(09%) | 160(12%) | 6458(11%) |
| C | 1 Year To < 2 Years | 2723(24%) | 3455(23%) | 6351(22%) | 457(22%) | 281(22%) | 13267(22%) |
| D | 2 Years To < 5 Years | 3233(28%) | 3980(27%) | 8050(27%) | 532(26%) | 338(26%) | 16133(27%) |
| E | 5 Years To < 10 Years | 777(07%) | 860(06%) | 2164(07%) | 103(05%) | 67(05%) | 3971(07%) |
| F | 10 Years And Greater | 545(05%) | 570(04%) | 1208(04%) | 66(03%) | 47(04%) | 2436(04%) |
| G | Does Not Remember | 804(07%) | 1317(09%) | 1583(05%) | 146(07%) | 115(09%) | 3965(07%) |
| H | Has Never Had Exam | 375(03%) | 611(04%) | 4438(15%) | 341(16%) | 122(09%) | 5887(10%) |
| Totals | | 11443 | 14843 | 29445 | 2073 | 1289 | 59093 |

Time Since Last Eye Exam vs Age Range

| Code | Time Since Last Exam | 19 And Younger | 20 - 39 | 40 - 64 | 65 And Older | Total |
|---------------|-----------------------------|-----------------------|----------------|----------------|---------------------|--------------|
| A | 0 Months To < 6 Months | 119(12%) | 929(07%) | 2854(09%) | 3183(21%) | 7381(12%) |
| B | 6 Months To < 1 Year | 114(12%) | 1083(08%) | 3206(11%) | 2174(14%) | 6816(11%) |
| C | 1 Year To < 2 Years | 220(22%) | 2334(17%) | 7087(24%) | 3826(25%) | 13985(23%) |
| D | 2 Years To < 5 Years | 211(21%) | 3368(25%) | 8985(30%) | 3734(25%) | 16933(27%) |
| E | 5 Years To < 10 Years | 43(04%) | 1165(09%) | 2091(07%) | 667(04%) | 4096(07%) |
| F | 10 Years And Greater | 15(02%) | 772(06%) | 1313(04%) | 360(02%) | 2528(04%) |
| G | Does Not Remember | 110(11%) | 1341(10%) | 1748(06%) | 839(06%) | 4228(07%) |
| H | Has Never Had Exam | 156(16%) | 2390(18%) | 2860(09%) | 423(03%) | 6079(10%) |
| Totals | | 988 | 13382 | 30144 | 15206 | 62046 |

Time Since Last Eye Exam vs Gender

| Code | Time Since Last Exam | Male | Female | Total |
|---------------|-----------------------------|-------------|---------------|--------------|
| A | 0 Months To < 6 Months | 2354(11%) | 4895(12%) | 7249(12%) |
| B | 6 Months To < 1 Year | 2076(10%) | 4649(12%) | 6725(11%) |
| C | 1 Year To < 2 Years | 4242(20%) | 9534(24%) | 13776(23%) |
| D | 2 Years To < 5 Years | 5461(26%) | 11244(28%) | 16705(27%) |
| E | 5 Years To < 10 Years | 1567(07%) | 2491(06%) | 4058(07%) |
| F | 10 Years And Greater | 1134(05%) | 1367(03%) | 2501(04%) |
| G | Does Not Remember | 1724(08%) | 2450(06%) | 4174(07%) |
| H | Has Never Had Exam | 2551(12%) | 3452(09%) | 6003(10%) |
| Totals | | 21109 | 40082 | 61191 |

Risk Factors - Patients Recommended For Glaucoma Consultation

| <u>Race / Age</u> | <u>20 - 39</u> | <u>40 - 64</u> | <u>65 and older</u> |
|-------------------|----------------|----------------|---------------------|
| African American | 393 | 1840 | 1203 |
| Asian | 41 | 236 | 190 |
| Caucasian | 107 | 514 | 819 |
| Hispanic | 503 | 1652 | 1250 |
| Other | 44 | 95 | 81 |

| <u>Race / Family History Of Glaucoma</u> | <u>Yes</u> | <u>No</u> |
|--|------------|-----------|
| African American | 864 | 2124 |
| Asian | 49 | 213 |
| Caucasian | 295 | 960 |
| Hispanic | 536 | 2507 |
| Other | 28 | 145 |

| <u>Age / Family History Of Glaucoma</u> | <u>Yes</u> | <u>No</u> |
|---|------------|-----------|
| | 312 | 1116 |
| 20 - 39 | 1032 | 2916 |
| 40 - 64 | 4252 | 11068 |
| 65 And Older | 2008 | 10036 |



Section 4: Reference

Reference and Contact Information

1. The Friends of the Congressional Glaucoma Caucus Foundation
1983 Marcus Avenue, Suite 111
Lake Success, NY 11042

Phone: (516) 327-2236

FAX: (516) 327-0260

President and CEO: Mr. S.J. "Bud" Grant

Email: sjbudgrant@aol.com

NOTE: Additional personnel in the office can be reached at the above phone number and fax if you should need additional supplies, etc.

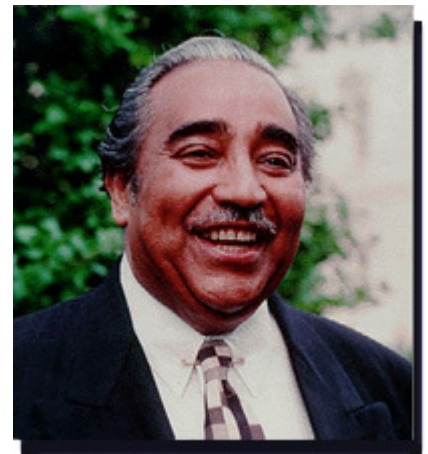
2. The Friends of the Congressional Glaucoma Caucus Website
<http://www.glaucomacongress.org>
3. The Foundation of the American Academy of Ophthalmology
<http://www.aao.org>
4. The American Glaucoma Society
<http://www.glaucomaweb.org/>
5. National Eye Institute
<http://www.nei.nih.gov/>
6. United States House of Representatives
<http://www.house.gov>
7. United States Senate
<http://www.senate.gov>



Biography of Charlie Rangel

Congressman Charles B. Rangel is serving his seventeenth term as the Representative from the 15th Congressional District, comprising East and Central Harlem, the Upper West Side, and Washington Heights/Inwood. Congressman Rangel is the Ranking Member of the Committee on Ways and Means, Chairman of the Board of the Democratic Congressional Campaign Committee and Dean of the New York State Congressional Delegation.

Congressman Rangel is the principal author of the five billion dollar Federal Empowerment Zone demonstration project to revitalize urban neighborhoods throughout America. He is also the author of the Low Income Housing Tax Credit, which is responsible for financing ninety percent of the affordable housing built in the U.S. in the last ten years. The Work Opportunity Tax Credit, which Congressman Rangel also championed, has provided thousands of jobs for underprivileged young people, veterans, and ex-offenders.



As the former chairman of the Select Committee on Narcotics Abuse and Control, Congressman Rangel continues to lead the nation's fight against drug abuse and trafficking. In his efforts to reduce the flow of drugs into the United States and to solve the nation's continuing drug abuse crisis, Congressman Rangel serves as chairman of the Congressional Narcotics Abuse and Control Caucus.



Congressman Rangel is a founding member and former chairman of the Congressional Black Caucus; he was also chairman of the New York State Council of Black Elected Democrats and was a member of the House Judiciary Committee during the hearings on the articles of impeachment of President Richard Nixon.

Congressman Rangel served in the U.S. Army from 1948-52, during which time he fought in Korea and was awarded the Purple Heart and Bronze Star. Congressman Rangel has authored several pieces of legislation to benefit minority and women veterans, including a successful bill that established the Office of Minority Affairs Within the Department of Veterans Affairs.

In 1987, at the height of the battle against apartheid, Congressman Rangel led the effort to include in the Internal revenue Code one of the most effective anti-apartheid measures, denial of tax credits for taxes paid to South Africa. This measure resulted in several Fortune 500 companies leaving South Africa. In addition, Congressman Rangel played a vital role in restoring the democratic government in Haiti.

Congressman Rangel is a graduate of New York University and St. John's University School of Law. He has spent his entire career in public service, first as an Assistant U.S. attorney for the Southern District of New York, and later in the New York State Assembly. He was elected to the 92nd Congress on November 3, 1970, and has been re-elected to each succeeding congress.

Congressman Rangel lives in Harlem with his wife Alma, who is a founding member of the Congressional Black Caucus Spouses and participates in many civic and community organizations. Congressman and Mrs. Rangel have two children.





Sample Letter to a Member of Congress

The Honorable MOC

Dear CONGRESSMAN/WOMAN:

The Friends of the Congressional Glaucoma Caucus Foundation, Inc., is dedicated to helping all Americans fight the scourge of glaucoma and other eye diseases. The Foundation provides diagnostic screenings opportunities for high risk glaucoma population groups all across the nation. There are 63 members of the Congressional Glaucoma Caucus currently.

One of the most important initiatives in our battle against this silent thief of vision is our Student Sight Savers Programs, originally created by Dr. Eve Higginbotham. We here at XYZ Medical School have initiated a Student Sight Saver Program here in COMMUNITY. We will be having a community screening at LOCATION on DATE. It would be a wonderful addition to our effort if you, as our CongressMAN(WOMAN) would be able to be with us on that date.

Please try to join us on DATE. Contact me at NUMBER to make arrangements.

Sincerely,

SSSP Coordinator

Final Comments to Our Student Sight Saver Program Volunteers

Thank you for taking the time and trouble to volunteer for this program. Now that you have finished reading our manual, we request that you be aware of the following:

1. This handbook is a work in progress;
2. It does not cover all aspects of glaucoma screening, although we have tried to be as complete as possible;
3. Your supervisors and the staff of the Friends of the Congressional Glaucoma Caucus Foundation will be happy to answer any further questions you might think of;
4. We are open to any suggestions you might have to improve the process.

Good luck!

The Friends of the Congressional Glaucoma Caucus Foundation

Credits

Eve J. Higginbotham, M.D. - Executive Editor
Randall D. Bloomfield, M.D. - Consulting Editor
Brian Quinn - Production Editor
Dawn Medler - Contributor
Rachael Bishop - Assistant

Special Thanks to

Melissa Caraballo
Jaspreet K. Grewal
For their real-world help in creating this book.

Friends of the Congressional Glaucoma Caucus Foundation

Stanley J. Bud Grant - President & CEO
Anthony J. Pisacano, M.D. - Chairman of the Board
Frank Ashburn, M.D. - Medical Director